

[illegible]
$$\frac{1}{2} \quad \frac{1}{2} \quad i$$

This invention relates to a process for the production of dithiophosphoric acid polysulfide mixtures, which is characterized in that dithiophosphoric acid disulfides are reacted with sulfur at elevated temperatures. The dithiophosphoric acid polysulfide mixtures produced using the process according to the present invention are used as sulfur donors for the vulcanization of natural and synthetic rubbers and in the latex vulcanization of natural and synthetic rubber latex.